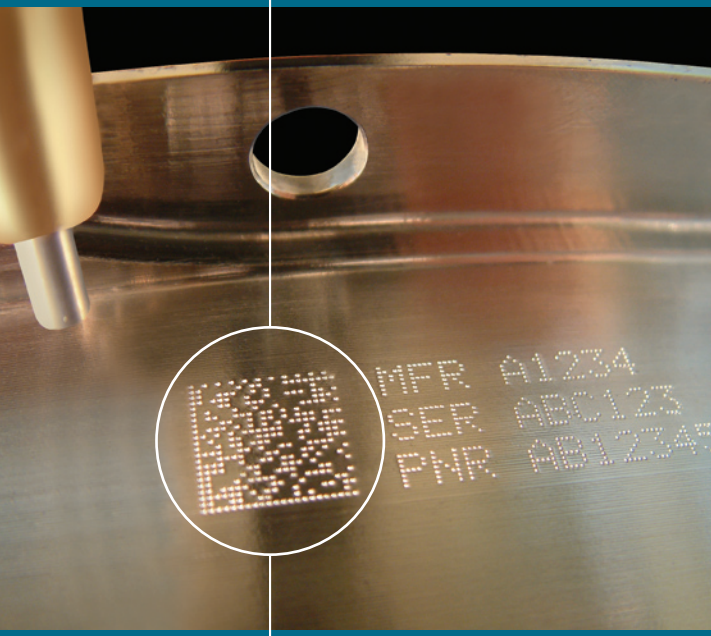
OVERVIEW

IUID

ITEM UNIQUE IDENTIFICATION



A BETTER WAY TO KEEP TRACK OF THINGS

What is "*Item* Unique Identification" (IUID)?

Serving the same purpose as a social security number, a Unique Item Identifier (UII) distinguishes one tangible item from all others through the use of an identifying mark or label. Item Unique Identification (IUID) is not accomplished with just one technology product, but involves a comprehensive system of hardware, marking devices, hand-held imaging devices, software applications and databases to collect, access, and use IUID information.

Product Identification by groups or classes has existed in a variety of forms since the early 1930s. Automatic Identification and Data Capture (AIDC) at the product group/class level has its roots in the commercial grocery industry, where store managers desired a way to track and maintain large inventories of perishable goods. The primary barrier was finding affordable automated technology that could read and process the identifying information for each item. Decades of research and experimentation finally produced a technology suitable for conveying the information. In 1971, the UPC barcode was scanned.

IUID is the next step in this evolution to move from product identification to item identification. Instead of the recognizable linear barcode, IUID leverages existing industry practices for identification and marking, including the use of a high density two-dimensional data matrix symbol. This compact matrix enables unique identification of individual items using existing data elements. Automated identification technologies (AITs) can then be used to capture and decode the IUID data encoded in the data matrix.

Critical data relevant to a specific item is captured from an IUID mark using a hand-held imaging device. At the same time the IUID data is marked on the item, the pedigree data associated with the item is entered into the IUID Registry via the Wide Area Work Flow (WAWF) or alternate methods and is accessible by users throughout the DoD and the Defense Industrial Base.

Have you ever wondered what your life would be like if social security numbers did not exist? How would you be distinguished from your neighbor or a person with the same name as you? How would your FICA contributions be tracked and your social security retirement benefits be paid? How would your eligibility for MEDICARE and MEDICAD be established?

For many decades, uniquely identifying or serializing real estate, people, and entities has been a vital tool to manage our economy and operate businesses. To protect and make each of us accountable and to access the benefits we have earned and are entitled to, each US citizen is uniquely distinguished by his or her social security number—or "unique identifier."

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IUID in the DoD

The DoD IUID policy was created through a series of memoranda issued beginning on July 29, 2003 by the Acting Under Secretary of Defense, Acquisition, Technology & Logistics (AT&L). This policy requires all items delivered to the DoD with a unit acquisition value of $5,000 or more, or that are serially managed, controlled inventory, mission critical or otherwise designated to be marked with a UII. The IUID policy is mandatory for all DoD contracts that require the delivery of items, including those for other agencies and foreign customers.

Two main processes are involved in the IUID requirement:

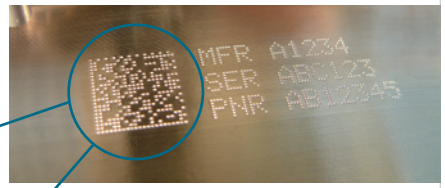
1) Item marking; and
2) Delivery of data about items as part of the acceptance and delivery process.

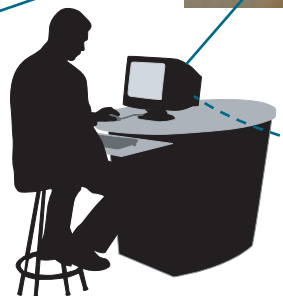
In addition to these two main processes, DoD components will also update lifecycle data from property and maintenance programs.

Item marking requires that qualifying items contain a data matrix either directly inscribed on the individual item or on a permanent label or data plate attached to the item. This matrix contains a set of data elements that form the Unique Item Identifier (UII), which is a globally unique number used to identify a specific item.

The second process—**delivery of data about items**—is executed through the use of the IUID Registry. The IUID Registry is the authorized repository that captures and stores all IUID data, including what the item is, its original owner, its initial value, acceptance timing, and other pedigree data points. Eventually, the IUID Registry will enable full lifecycle visibility for tangible items, integrating financial, maintenance, and accountability systems.

For most DoD contractors, the implementation of these processes is an enhancement to an existing system, not a wholesale change.





le Area Work Flow (WAWF)

IUID Registry

How to Implement IUID

Recognizing the timelines, roles, and obligations directed by the IUID policy, the Defense Procurement and Acquisition Policy (DPAP)-IUID program office developed a roadmap and an associated toolkit for each of the four major sectors responsible for IUID implementation: Defense Suppliers, Program Managers, Maintenance Depots, and Operations and Field Maintenance Operations. The IUID Toolkit **(www.iuidtoolkit.com)** contains a myriad of templates, samples, checklists, tutorials, links, and other valuable information that streamline the process of making IUID goals a reality.

Benefits of IUID

The IUID program will enable easy access to information about DoD possessions and will accelerate and improve the efficiency of acquisition, repair, and deployment of items. IUID provides the following benefits:

- Creates capability to identify a specific item and its history (e.g., source, usage, and maintenance)
- Improves access to historical data for use during systems design and throughout the life of an item
- Enables specific item tracking throughout the supply chain and operational use worldwide
- Allows item visibility regardless of platform or "owner"
- Reduces item management costs
- Provides item data necessary for top-level logistics and engineering analysis
- Provides accurate sources for property and equipment valuation and accountability
- Enhances item intelligence for warfighters' operational planning
- Reduces workforce burden through increased productivity and efficiency
- Improves inventory accuracy
- Combats counterfeiting of parts

Information is critical to the modern warfighter, and the IUID program provides the DoD with the insight necessary to track and control individual items. IUID will ease the acquisition and inventory burden on the warfighter and provide a more cost-efficient acquisition process for the taxpayer. Uniquely identifying items provides valuable business intelligence throughout the DoD and, once connected with unique identification efforts for personnel, organizations, and property, will expedite swifter deployment. But the benefits of IUID are not limited to the DoD—by integrating the data captured through IUID marking, suppliers can improve their own item tracking procedures and gain further insight into successful business practices. IUID modernizes the entire supply chain and adds value from the manufacturing plant to field use to Depot repair.

With unique item identifiers, government and commercial enterprises are able to track individual unique items in shipment and manage inventory more effectively, provide current valuations of items at all times, and produce clean financial audits.

For More Information

The DoD DPAP-IUID program office has provided numerous resources and tools to assist in the implementation of IUID.

DoD DPAP-IUID Homepage
For more information about the IUID Program, please visit:
http://www.uniqueid.org

IUID Registry
For additional information regarding data submission to the IUID Registry, please visit:
http://www.acq.osd.mil/dpap/UID/DataSubmission.htm

DAU UID Special Interest Area Link
https://acc.dau.mil/uid

IUID Toolkit and Tutorial
For an overview of IUID technology and policy, please visit:
http://www.iuidtoolkit.com/overview

The UID PMO sponsors a number of educational UID Forums and BootCamps to help with IUID implementation. For the latest conference information, visit **http://www.UIDforum.com.**

Still have questions about IUID? To contact the helpdesk, please **call (703) 848-7314** or **email info@uniqueid.org**